# **International Group of Funding Agencies for Global Change Research** (IGFA)

# Executive summary of the eighth meeting of IGFA Oslo, Norway, September 29 - October 3, 1996

Representatives from fifteen countries and the European Union participated in this eighth meeting of IGFA. The meeting was hosted by the Research Council of Norway. IGFA dealt with a very full agenda, with break out sessions in the evening. On the first day a very interesting set of lectures on Norwegian research in Svalbard was presented.

### The major results of this 8th meeting were:

- approval of workplans and terms of reference of the IGFA working groups
- commitment to undertake the effort necessary to complete the resource assessment
- commitment to consider participation in a concerted funding support exercise for the central activities of the IHDP
- agreement on a procedure for dealing with resource problems of the International Project Offices of the global change programmes
- approval of recommendations to IGFA member agencies for dealing with data and observation issues
- agreement on the IGFA programme of work for the coming years

### **SESSION 1: National Highlights**

The presentations of highlights in national global change policy, plans and programmes showed the following general trends:

- environmental and global change are high on the political agenda in most countries;
- funding of GC research is generally stable (but under pressure), with some notable exceptions;
- human dimensions research is receiving increased priority, the issue of health and global change is coming up;
- a shift of funding is taking place towards research on responses and adaptation, development of predictions, with a focus on local/regional implications;
- national funding agencies increasingly stimulate international co-operation in research on global change; several countries take an integrated approach towards WCRP/IGBP/IHDP;
- funding of global change research becomes part of regular funding mechanisms, with less special programmes;
- in some countries collaboration of science funding agencies and aid agencies is developing;
- there is an interest in developing public-private collaboration in supporting global change research; and
- the UK, US and Germany have reviewed their national global change research policy.

These national presentations were welcomed as a very useful mechanism to exchange information. It was concluded to allocate more time to this item in the next meeting.

### **SESSION 2: Working Groups**

The work of the working groups on the resource assessment, on human dimensions issues, on data and observations and on relations with aid agencies has provided substantive input to the plenary IGFA meeting. In break out sessions proposals for the <u>Terms of Reference (ToR) and work plans were finalised</u>, and approved by the plenary. IGFA members are encouraged to nominate members for the working groups if they have not yet done so.

IGFA members and the IGBP consider the <u>resource assessment</u> a difficult but extremely useful exercise. The pilot project has uncovered major discrepancies between the identification of core research at the national level and what is recognised as such by the IGBP Programme Elements. Ten countries have now completed their national inventory. These inventories will be categorised by appropriate national bodies, including the National IGBP Committees. The Core Project Offices will then be asked to check the identification of Core Research. Even though we all realised that completion of the resource assessment will require a major effort, both at the national level and at the level of the international programmes, nearly all IGFA members expressed a commitment to complete their part of the inventory. IGFA members hosting a Core Project Office are encouraged to provide - if needed - modest additional funding for the extra work of the Core Offices in the resource assessment.

The Terms of Reference for the working group on <u>relations with aid agencies</u> were finalised. On the basis of these ToR IGFA members will be invited by the Chair of the Working Group, Dr. Robert Corell, to identify members for the working group, both from the funding agency side and from the aid agencies.

<u>Data and observations</u> were a major focus for this meeting. CEOS is developing an Integrated Global Observing Strategy. A variety of users (researchers, operational users, planners, policy makers), private sector data providers and developing countries (both as providers and users of data) will be involved. The strategy will address both the space based component and the in situ observations. With regard to the global observing systems it was noted that their development could considerably benefit from

having an IGFA like structure on the funding side. It was agreed that as a first step it is necessary to develop effective national structures, involving all agencies (science funding, operational entities, ministries etc.) with responsibility and interest in these observations.

The working group on data and observations had developed a set of recommendations for action by IGFA agencies regarding:

- mechanisms to improve access to and visibility of dispersed national datasets
- international data exchange agreements
- research versus operational data bases

- funding issues related to observation programmes
- relationship between space and non-space (in situ) data
- flexibility and better use of existing resources
- prioritisation

These recommendations were discussed in the plenary and changes were envisaged. A revised set will be circulated for approval.

The working group on <u>Human Dimension</u> issues has monitored the developments in the IHDP. Its Chair has given follow up to the decision taken by IGFA in Kyoto, to undertake a concerted donor action to support the development of the IHDP. The Chair's report warns: "A too slow response on these from IGFA members [...] may put at risk the emergence of what has since long from plenary IGFA been called for: a vigorous and competent research programme actor at the highest international level interplaying with [..] IGBP and WCRP on equal par".

The working group deals with broader HD issues as well. The group will analyse the consequences of:

- the pluralization of actors: HD initiatives are taken by APN, START, the European Union and the European Science Foundation, as well as at the national level in numerous programmes. Most of these initiatives are only weakly connected to the international level.
- the need to involve developing countries in international activities dealing with HD issues.
- the growing interest of the policy community in HD issues.

In the break out session a draft workplan was developed, and subsequently adopted by the plenary.

### **SESSION 3: International Programmes**

The presentation of <u>WCRP</u> showed that the programme is in a mature stage. TOGA has come to an end, and WOCE is in its final phase. The focus here is on integration and modelling. Key activities for the future will be taken up in CLIVAR. Interactions with IGBP are very good, and expanding. Examples include collaborations of BAHC and GEWEX; CLIVAR and PAGES; IGAC and SPARC. The interest in human dimensions issues is growing. WCRP will hold a major science conference 26-28 August 1997, which will be used to develop new directions for WCRP.

The <u>IHDP</u> has gone through a phase of major restructuring. ICSU has adopted the programme; a new Scientific Committee was formed (membership still partly open); a new Executive Director is being hired; Germany provides the basic support for the international secretariat in Bonn.

IHDP wants to concentrate its core activities on a very limited set of issues, in addition to developing co-operative links with national and international programmes. Programme development is along three lines (plus LUCC, which is fully operational with an international project office in Barcelona):

- fast track prospective future core projects
  - . industrial transformation
  - . institutions
- further development of activities already going on: e.g. perceptions, attitudes
- other activities
  - a small number of associated projects: e.g. environmental security
  - . specific joint modules

A special effort will be made to involve main stream social scientists in the programme.

Further development of the programme will require resources, which are presently lacking. The generous German offer provides the baseline support, but requires commitments for support from other countries as well. Some countries were able to announce a contribution during the meeting. It was decided that IGFA will now embark on the concerted donor action to generate support of IHDP during the coming two year period. The Chair of the HD Working Group will take the lead in this action.

The current status of the <u>IGBP</u> can be characterised as follows:

- the organisational structure and the procedures are well established;
- the IGBP has involved a network of leading scientists (Nobel Prize, Tyler Prize) and connects to national IGBP committees in more than 74 countries;
- eight core projects and three framework activities have been established with substantial interaction;
- increasing involvement of regions in the IGBP through START;
- project level integration of scientific results at the project level is starting in GCTE; JGOFS and IGAC will follow shortly.
- significant new sometimes unexpected results have been obtained;
- IGBP has delivered major input to the IPCC.

In response to the evaluation, IGBP has created four task forces of the Scientific Committee:

- terms and definitions
- synthesis and integration
- transfer of results
- communications

Other recommendations were also followed by specific actions by the IGBP leadership.

The funding of the central activities is barely adequate and fragile. Research activities are limited by human resources.

With regard to the funding of the International Project Offices, IGFA adopted the proposal which was developed by the Staff Group. Key elements are that the funding of such offices on a long term basis (3-4 years) is the responsibility of the host agency. If that agency is unable

to continue its support, it should take the lead in developing the total resources needed through a consultative process with other IGFA members.

The Executive Director of the IGBP proposed that funding agencies give preference in funding decisions to projects belonging to the IGBP (and WCRP, IHDP). A "relevance-check" might come prior and in addition to normal peer review at the national level. Some IGFA members found this an interesting mechanism. The Steering Group will address this proposal in the intersessional period.

Transects are becoming a new integrative mechanism in the international global change programmes. They:

- promote inter project and inter programme co-ordination;
- allow for economy of scale by combination of equipment;
- provide a high profile framework for regional co-operation;
- are a platform for capacity building activities;
- facilitate regional policy development.

The example of LBA shows what these transect studies could look like. LBA also shows the importance of involving all major prospective funding agencies at an early stage.

### **SESSION 4: Regional Networks**

The following conclusions can be drawn from the presentations by START, IAI, APN and ENRICH:

- major networks for regional research and capacity building are in place, and are investing money.
- new regions are coming in: e.g. Africa and the Mediterranean
- the awareness of the importance investing in capacity building is growing.
- more attention should be paid to the countries with an economy in transition. Here lies a clear role for ENRICH.

### **SESSION 5: Mode of Operation of IGFA and Future Agenda**

The document on the Future Role of IGFA was welcomed as a guide for future agendas of IGFA. The three roles of IGFA:

- platform for internal communication among member agencies
- platform for external communication with international programmes, UN bodies, policy circles
- platform to address specific resource problems were recognized as key roles. Mechanisms for external communication should further be developed. This is a task for the Steering Group.

In a Tour de Table members expressed their <u>expectations of plenary IGFA meetings</u>. The following ideas were put forward:

- high level think tank on global change research policy issues
- forum for exchange of ideas and information on funding
- platform for informal co-ordination of national funding policies and strategies
- forum for finding solutions for problems concerning funding for centralised costs
- brokerage/interface role between research and various communities (e.g. policy community, business)
- several members would like a continued emphasis on the substance of the research programmes, not just the funding policy aspects
- a focused, thematic approach to the agenda of plenary meetings was recommended
- membership of IGFA should be expanded (major funders not participating at present, central and eastern European countries, rapidly developing economies, but also some major developing countries)
- maintain the informal character of IGFA, but:
- make sure that the outcomes of the IGFA discussions are fed into the national level

The next meeting will be held in Europe in the period 14-18 October 1997.

Date and place will be determined before the end of this year. The draft agenda for the next meeting will contain the following items:

- the resource assessment
- focused national presentations
- aid agency collaboration
- human dimension research
- data and observing systems
- progress in the international global change programmes (focus to be decided)
- outreach/interface role of IGFA towards:
  - . policy
  - . private sector
  - . general public
- specific resource problems of the international programmes

In the intersessional period the working groups will do as much preparatory work as possible. Progress of the intersessional IGFA work will be guided by the IGFA Steering Group (Chair, past and future session Chair, Chairs of working groups and others as needed), and implemented by the Staff Group, headed by Hans de Boois, with Helmut Kühr, Lou Brown, Steve Morgan, John Wang. An ad-hoc group will continue the dialogue with WCRP/IGBP/IHDP. The Steering Group will decide on the focus of the next meeting in order to keep the agenda manageable, and to limit the meeting to three and a half days. Parallel break out sessions will be included because they are a useful mechanism to develop concrete outputs and to increase involvement in the work of IGFA.

Venue:

# Agenda for the Oslo meeting 29 September - 3 October 1996

Voksenasen, Ullveien 4, 0394 Oslo, Norway.

Registration:		Sunday afternoon and during breaks participants can contact the conference secretariat for registration.
	pm 18:30 - 21:00	Optional: Working group meetings Reception on behalf of the Research Council of Norway for all participants During and after dinner: optional Working group meetings Meeting of Steering Committee, sessions chairs and Staff Group to finalize organizational aspects of the meeting
Monday30		SESSION I: OPENING chair: Kirsten Broch Mathisen
1	9:00	Opening and welcome
2	9:10	General introductions of sessions session chairs Session chairs will identify briefly the agenda items to be addressed in their sessions and will suggest options for resolving the issues.
3	9:30	The future role of IGFA  An introduction will be given on the mode of operation and the future role of IGFA, which will extensively be discussed in the session on Thursday.
4	9:45	Open forum for announcement of highlights members Participants are invited to present written summaries of important recent activities and plans for the future. Participants can summarize highlights in 2 minutes oral presentations. The presentations could be used as well for calls for cooperation of other members in funding of specific activities.
	11:00	- coffee break
5	11:30	SESSION II: WORKING GROUPS, part A chair: Marie-Lise Chanin WG on resource assessment Patermann/Kuehr The chair of the WG will present the Terms of Reference, the results and analysis of a test run where the categorization of a number of projects was checked and discussed with IGBP. Furthermore, recent development of procedures in collecting precise project data are discussed, as well as preliminary data and analysis of the 2nd
	12:30	phase of the assessment are given lunch

Monday30		continued
6	14:00 15:00	WG on relations with aid agencies  The chair of the WG of this subject will present the draft Terms of Reference and workplan for approval by IGFA.  Discussion will identify and address needs and opportunities for (1) interaction between research funding and aid agencies in support of global change research and (2) IGFA's future role in this area.  - adjourn
7	15:30	Departure for the Fram Museum: national presentations Norway and welcome diner on behalf of the Research Council of Norway
Tuesday1		SESSION II: WORKING GROUPS, part B chair: Louise Dandurand
8	9:00 10:30 11:00 12:30	WG on observations and data management This session will focus on observations for global change research including international observing systems and data management developments. The chair of the WG will report on the results of the request for national perspectives and the outcome of the deliberations of the IGFA Working Group on Observations and Data. A CEOS representative is invited to report on the CEOS IGOS Meeting, Seattle, March 1996. A CEOS representative is invited to report on the In-Situ Observations and Data Meeting, Geneva, September 1996 - coffee break WG on observations and data management, continued - lunch
9	14:00	SESSION III: INTERNATIONAL PROGRAMMES, part A chair: C.Y. Tsay WG on IHDP Svedin The chair of the IGFA WG on this subject will report on recent and planned activities of the WG.
11	15:00	IHDP Underdal The vice-chairman of IHDP is invited to inform IGFA and discuss the strategy of the re-start of IHDP.

10 15:30 **WCRP GrassI** 

The director of WCRP is invited to inform IGFA and discuss developments of interest for the funding agencies.

	16:30	- coffee break
Tues	sday1	continued
12A	17:30	IGBP Introduction by the director of IGBP of recent developments in IGBP research. (To be continued Wednesday, item 12C)
	17:30 18:00	<ul><li>executive session on session II: working groups</li><li>adjourn</li></ul>
12B :	20:30	Parallel break-out sessions for extended discussion on Working Groups Chaired by the WG chairs.
Wednesd		2 SESSION III: INTERNATIONAL PROGRAMMES, part B chair: Christian Patermann
12C	9:00	IGBP (continued)  The director of IGBP is invited to inform IGFA and discuss with it recent developments in IGBP that are relevant to IGFA members, especially IGBP's plans for implementation of recommendations.
	10:00 apley	by the Evaluation Committee and IGFA.  Inter(core)project activities and the role of transect office(r)(s).
	10:45	Followed by a short presentation on LBA.  Diana Wickland  coffee break
13	11:15	Policy on international project offices Brown
	12:30	A proposal will be presented on the strategy of IGFA with regard to mechanisms for handling funding requests for project offices linked to international programmes. IGFA is asked to discuss the potential applicability of this approach for other funding requests as well.  - lunch
		A proposal will be presented on the strategy of IGFA with regard to mechanisms for handling funding requests for project offices linked to international programmes. IGFA is asked to discuss the potential applicability of this approach for other funding requests as well.

Wednesday 2		continued
15 (16)	16:30 17:30	SESSION V: THE MODE OF OPERATION OF IGFA, part A chair: John Marks Introduction: identification of the position and results of IGFA, membership, internal and external relations, working groups and other intersessional activities.  A draft paper has been prepared to outline options for the future position of IGFA in relation with the international programmes and organizations. IGFA's relationships with international conventions and related international institutions, such as for example DIVERSITAS, Bellagio group, OECD Megascience forum, IPCC, country studies programmes will be discussed.  Corell/Brown  * executive session on session III: international programmes and on session IV: regional issues
	18:00	- adjourn
	20:30	Reserved for Steering committee session
Thu	ırsday 3	
16	9:00	SESSION V: THE MODE OF OPERATION OF IGFA, part B chair: John Marks  A discussion will be held on the position and role of funding agencies and IGFA in the changing context of global change research and policy.  - coffee break
17	11:00	Conclusions on the break-out sessions (item 12B) on working groups
18	11:30 12:00 12:30	CLOSING SESSION chair: Kirsten Broch Mathisen Next meeting and intersessional activities Invitations to host the next plenary meeting of IGFA are encouraged. Dates and place will be determined; intersessional activities, plans and meetings of working groups, other major events adjourn Steering committee and staff group wrap-up lunch.

### **Terms of Reference**

### **IGFA Working Group "Resource Assessment"**

(Vers. Sept. 26<sup>th</sup>, 1996)

- 1. Within IGFA the assessment includes,
  - a) the IGFA Working Group "Resource Assessment"; this group mainly analyses national inputs, develops and maintains the international database, and reports through its chair to IGFA.
  - b) the National Contact Points, designated by IGFA members. This group collects information at the individual project level on activities relevant to global environmental research. This serves as a basis for an aggregated assessment of the funding available for specific international programmes and core projects; they report to their IGFA members and to the Working Group.
- 2. The goal for these two groups is to conduct the IGFA Resource Assessment on a regular basis, together with national funding agencies, the international research programs (IGBP, WCRP, IHDP), and the appropriate national bodies. The Assessment consists of two complementary components, the Resource Allocations and Resource Requirements Survey.

A more detailed description of the process can be found in the Annex (and under the home page of the Resource Assessment at http://www.dlr.de/IGFA-DIS/); there a workplan is presented in Chapter 6.

- 3. The Resource Assessment is an ongoing activity. The Working Group will analyze collected data sets, including trends in funding and research and identifying new challenges. Funding statistics should be prepared and presented to IGFA at regular meetings every 2-3 years or as requested by the IGFA Steering Committee. The results are intended to enable the funding agencies from participating countries and international programmes to identify both allocated and required funding.
- 4. The national input of categorized global change research projects are to be compiled into an international database. Access is to be provided to all IGFA members, National Contact Points, and international programme offices via Internet/WWW.

Secretariat Working Group "Resource Assessment":

Helmut Kühr DRL/PT-AUG Südstrasse 125 D-53175 Bonn Germany

### **Appendix B**

In order to test the efficiency of the harmonization process, a pilot exercise with a German test package of GC-related project, categorized and sorted by core project, was carried out.

The German contact point and most of the IGBP programme elements concluded:

- · that the exercise had been very useful:
- that the core projects need to better understand the mechanism involved in obtaining the data;
- that there is a need for a carefully planned effort to communicate clearly and widely the objectives and methods of the assessment.

There was, however, a widely held view among the core projects that a useful result would be unobtainable with the time frame and resources currently available.

The programme elements need to streamline the process of handling such requests (and this effort has certainly launched them in that direction).

Any future effort should strive to give ample warning before setting deadlines, so the core projects can prepare an effort in advance.

IGBP recognizes that, to the extent possible, it needs to be able to identify the research which is being done in the names of its projects.

Some of the IGBP programme elements have stated that responding to the full scale IGFA exercise will either require increased resources or disrupt current scientific activities.

IGFA members may thus provide support to CPO's within their country, or ask the IGFA-steering committee for action.

National Contact Points may need IGFA member's support to continue collecting and categorizing project level data.

# **Appendix B**

Two ad hoc meetings of interested IGFA members and international programmes representatives took place on the Resource Assessment meeting (Tuesday night) and ad hoc meeting (Wednesday noon)

The following is a summery of both meetings:

- Resource Assessment remains to be of utmost importance;
- IGFA and the programmes need to continue process at full speed;
- guidance was given to continuously follow the process as described in the description of the Resource Assessment;
- the number of projects which need to enter the harmonization process may not be as large as earlier expected (about 2000-2500 projects world wide);
- the natural contact points are asked to continuously collect funding information for projects which ran two years prior to the survey year 1995, take 1995, and include one year thereafter: 1993-1996.

### Next steps:

- Start the harmonization process with packages from all other IGFA member countries by the end of 1996;
- In order to finish the process arrange a meeting of directors and CPO leaders of the International Programmes together with IGFA WG members in Potsdam Germany in August of 1997;
- Prepare statistics and analysis of the Resource Assessment for the next IGFA meeting in autumn 1997.

# **IGFA Working Group on the Relationship Between Research Funding and Development Aid Agencies**

# Agenda for Working Group Discussions Oslo, IGFA Meeting

October 1, 1996

- 1. **Terms of Reference:** Points of Clarification Regarding Implementation of the Terms of Reference, particularly:
  - Strategy,
  - · Goal, and
  - · Objectives.
- 2. **Issues to Discuss:** Discussion of Issues Identified in Terms of Reference, i.e.,

the "important areas in which there appears to be strong links between sustainable development and global change research include":

- · Environmental security and national economic security;
- · Water resources and availability;
- · Food security;
- · Health:
- · Natural ecosystems and biodiversity; and
- Natural resources.
- 3. **Questions to Consider:** Questions that may be important for IGFA to address, i.e., first, "Do or should development aid agencies promote, encourage and/or fund":
  - Scientific activities, including research, related to sustainable development;
  - · Technology development;
  - Capacity building in science related to global change;
  - Development of infrastructure (e.g., communications; networks; data management) related to sustainable development and/or global change research and/or
  - Sustainable development components of more broadly-based programs that could also include global change research?

second, "Do or should research funding agencies promote, encourage and/or fund":

- Research that bears directly on sustainable development, especially on:
  - > Environmental security and national economic security;
  - > Water Resources and availability;
  - > food security;
  - > Health;
  - > Natural ecosystems and biodiversity; and
  - > Natural resources?

- Capacity building in scientific related tot sustainable development?
- Development of infrastructure (e.g., communications; networks; data management) related tot sustainable development and/or global change research? and/of
- Global change research components of more broadly-based programmes that could also address sustainable development?

third and finally, "Can or should development aid and research funding agencies jointly fund activities of mutual interests?"

### 4. Work Plan Issues for Next Year (1996-97):

- Identification of Candidate countries/Specific development Aid Agencies therein, and Points of contact in the Development Aid Agencies, with whom discussions might be held during the coming year:
  - > Belgium
  - > Canada (Planned)
  - > Denmark
  - > European Commission (Initial Discussions Held)
  - > Finland
  - > France
  - > Germany
  - > Japan
  - > Netherlands (Planned)
  - > Norway (Planned)
  - > Sweden (Scheduled)
  - > Switzerland (Planned)
  - > USA (Planned)
  - > Other Countries?
  - > UNDP
  - > UNEP
  - > world Bank/GEF
  - > other International Organization?
- Members of the Working Group or IGFA Points of Contact for the Working Group on the Relationship Between Research Funding and Development Aid Agencies.
- Strategy for next 6-9 months would be to conduct the business of the Working Group via correspondence and, then, a Working Group meeting in late spring or early summer 1997.
- Vice Chair, should we select one?
- Development of a Long-Term Workplan, to be submitted to the 1997 IGFA Annual Meeting.

#### 5. Other Matters and Business:

Secretariat Working Group on the "Relationship Between Research Funding and Development Aid Agencies"

c/o L.B. Brown, secretariat National Science Foundation, Room 1070 4201 Wilson Blvd. Arlington, Virginia 22230 USA

# **IGFA Working Group on the Relationship Between Research Funding and Development Aid Agencies**

### **Work Sheet**

Countries and Specific Development Aid Agencies therein that wish to be candidates for Working Group discussions.
Candidate Country:
Nominee for Initial IGFA Working Group: Name:Address:
Phone: Fax: E-mail:
IGFA Point of Contact (for those not wishing to serve as Working Group members but want to stay involved with W.G.)
Name:Address:
Phone: Fax: E-mail:
Development Aid Agencies with whom discussions might be held:
Agency (#1): Point of contact: Address:
Phone: Fax: E-mail:
Agency (#2):
Phone: Fax: F-mail:

## **Appendix D**

# Statement from IGFA Plenary Meeting (Oslo, October 1996) on Observations and Data Management

Recognizing both the importance of data and observations for global change research, and also the pressures on budgets, IGFA has agreed the following statement of principles and actions for the forthcoming year.

### **Principles**

- Cooperation is encouraged with government agencies and the private sector to:
  - (i) identify and make available for global change research, data sets obtained for other purposes and,
  - (ii) improve observations, especially in data sparse regions.
- 2. IGFA recognizes the need for a strategic framework on global observing systems around which decisions and resource provision can be discussed and implemented.
- 3. IGFA encourages the development of appropriate mechanisms for the transition of capacity from research to operational mode.
- 4. IGFA members recognize the need to maintain national data management activities both to optimize access to, and utilization of, existing data, and also to provide the basis for data exchange at the international level.

### Actions for 1996/97

- 1. In order to improve the flow of information on data and observation issues, the Chairman of the Working Group will:
  - (i) Serve as a conduit between IGFA members and their National Contact Points:
  - (ii) Produce in collaboration with National Contact Points, an organogram showing key national data centers;
  - (iii) Produce a list of URL addresses.
- 2. IGFA Working Group on Observations and Data will:
  - (i) Enter into dialogue with CEOS, the Observing Systems and other relevant organizations on the ongoing discussions on an Integrated Global Observing Strategy;
  - (ii) Address the issues relating to the transfer of observing capacity from research to operational mode, and prioritization of global observing requirements;
  - (iii) Investigate and seek agreement on adopting an IGFA statement on data access principles;

# **Appendix D**

- (iv) Coordinate development of an IGFA World Wide Web site.
- 3. IGFA members will:
  - (i) Nominate a National Contact Point for Observations and Data Management;
  - (ii) National Contact Point will send organogram and list of URL#s to the Chairman of the Working Group;
  - (iii) Investigate options for cooperation with government agencies and industry to enhance both observing capacity and access to data;
  - (iv) Ensure an appropriate attention to the adequate resourcing of data management activities.

### Report by the IGFA Working Group on "Human dimensions"

to the IGFA plenary meeting
Oslo, 29 September - 3 October 1996

# THE SITUATION FOR HUMAN DIMENSIONS RESEARCH AN IGFA UPDATE SEPTEMBER 1996

### 1. General tendencies

The general RaD funding in most IGFA countries has continued to be restrained, with the exception of a few countries as Japan. In many cases there has been reductions of RaD budgets with quick effects on the willingness to support large international programmes and more specifically the willingness to expand activities not already in line.

In an overall sense environmental issues seem not to have been selectively hurt more than other areas, but the earlier top priority situation for this type of research seems to have given way for a situation where environmental research keeps a high priority but together with other domains of interest.

With special regard to the "human dimensions" aspects of the environmental field they seem to keep up considerable interest although the fraction of the funding is very low as compared to natural science and technical development efforts in the environmental arena. The obvious policy interest in the "human dimensions" sphere continues to draw attention although the focus is very much spread out over a spectrum ranging from global research on the more research oriented end to sustainability development approaches on the more "political end".

The need to involve "human dimensions" aspects is clear also in circles where a more pronounced natural science approach institutionally earlier has been the entry point as IPCC. It is not quite clear how the emphasis of the further development of these research efforts will proceed to develop: close to the natural science agenda or at least partly dissociated from it (as in the case of the increased interest in Agenda 21 follow up work). The involved strategic choices with regard to funding patterns - also at the international level - will have institutional effects quite soon. The choices will also depend on the relative strength of the voices arguing for their specific style, i.e. again a funding and institutional issue.

The "human dimensions" activities seem more distributed over a macro-micro scale than maybe the more natural science research interests. This has both conceptual as well as organizational reasons. At the conceptual level the important role of the local issues with regard to governance provides a specific entry point to discussions on global issues. The overall funding changes described above with basically strained RaD budgets has emphasized national

Also regional and partially selective policies of cooperation has been of more interest in relative terms, it seems, than efforts to pool resources directly at the highest international level.

The interest in global issues with regard to the complex web type of questions linking resources/environment/population/economics is however not dead. One interesting example this last year is the development in OECD of a Japanese initiative around such issues in the Megascience Forum, which could be taken as an example in this respect. Here the "human dimensions" is not only an added value, but seems to be at the core of the challenge. Maybe that case is significant to moves of interest for the reasonably close future. This would have a strategic importance with regard to the pattern emerging around the "human dimensions" activities now quickly expanding among many actors at several levels simultaneously.

### 2. The specific development of the IHDP

How is the development then for the specific IHDP programme re-started in February 1996 (observe the symbolic name change)? The most significant change has co-sponsor with ISSC forming the new IHDP programme, drawing on the partial continuity from the old programme. But the chair of the new Scientific Committee (not yet completely recruited) is new (Professor Eckhart Ehlers from Germany). Many of the new committee members are new to the setting. The Executive Director of the programme is under recruitment. The head office is moving to Bonn from Geneva after a German Government offer of support appearing during the summer 1996 and after the withdrawal of the Swiss core office support. And the programme are distinctly shifted in emphasis as compared to what were the policy lines of the earlier steering committee of the programme are distinctly shifted in emphasis as compared to what were the policy lines of the earlier HDP-programme (although during 1995 the interim steering committee at that time started to move in the directions now emerging as much stronger policy indications).

For the programme the year has been rough in terms of support and changes in the framework. The changes of the co-sponsor structure has been done, but it has so far not yet had visible impacts on e.g. most IGFA member interests to support the programme, maybe except fort he new core office in Bonn. Hopefully for the programme this will stabilize the situation in more than one way and quite soon.

The plenary IGFA thus is facing a situation with the programme in which the past year has provided drastic and highly interesting changes. It remains to be seen if these changes also will change the landscape internationally of support, not the least among IGFA members.

As helping device for an IGFA judgment at this time let us use the test points already earlier developed by the IGFA Human dimensions Work Group for these purposes (The Stockholm Workshop, February 1994).

The work so far during a few months in the IHDP indicates a strong interest to dwell on the programme rationale and especially what constitutes a concentration policy seen in a time frame.

This is along the line of strong earlier IGFA suggestions. The process is distinctly under way. It is reasonable to give at least half a year more to really see the outcome of the process. It is promising in what is seen. It is difficult to assess in its broader content as so fart here is no formal document from the programme on these issues (and could probably not be expected either until early 1997.

It is important to note the continued shift in internationally oriented policy circles towards a broad "sustainable development" policy emphasis. The extent to which the IHDP can match this interest remains to be seen.

### B. Relationship to national and regional programmes

This seems both with regard to earlier IGFA assessments as well as indications on the overall international funding landscape and its dynamics as a key point. The signals from the IHDP indicates that the new leadership takes this issue very seriously and indeed wants to find a process where the national programmes and actors are distinctly involved. Exactly how this will emerge in practice is not yet seen, but the direction is very clear and it moves in the direction IGFA has wanted for a long time.

It also pertains to the self image of the programme where new signals on a changed perception on the role of the programme seems to emerge in a more enhances "service role" and less competitive role with regards to other ongoing activities in the world. If this shift of policy also materializes in distinct action it is another IGFA interest that would have been met.

### C.Process and policy of openness

Already the Geneva 1995 Conference of HDP moved in the direction towards a broader degree of openness. It still remains to be seen how this openness. It still remains to be seen how this openness will be operationalize as it is difficult to assess only the good intentions of the new leadership. But the direction seems at this earl stage to be that the programme is strongly aware of this issue and intends to distinctly make moves in the policy covering this domain.

### D. Institutional and Managerial issues

The earlier "messy" situation with regard to a treamlined orderline and the problematic secretariat pattern until recently may distinctly be settled by the transfer of the core office to Bonn, including the support from the German Government. The prognosis is now good, but naturally it is premature to have any opinion on a secretariat which is not yet in place and with an Executive Director not yet appointed. But the process of the selection is in the final round and the institutional embedding seems promising.

The settled basis for the LUCC core office to be inaugurated October 1996 is another important piece of development since the IGFA Kyoto meeting. It pertains not only to the particular area of land use/land cover but can be seen as an early institutional outcome of integrated natural science/social science efforts with potential possibilities to be generalized.

As seen from the IGFA standpoint maybe even more important than these moves is the emergence of ICSU as a formal co-sponsor to the programme together with ISSC. This should from IGFA points of view be seen as the major - and positive - strategic change of the overall pattern surrounding the programme.

Having gone through the set of earlier used IGFA criteria's it might be interesting at this stage to recall the outcome of similar discussions one year ago at the IGFA plenary meeting in Kyoto, codified in the IGFA letter to the President of ICSU professor Jim Dooge from Robert W. Corell on behalf of IGFA.

Among the several issues raised in the letter the following may be of interest to comment on here:

"In this regard the proposed HDP work plan for the next two years appears too ambitious in view of the resources likely to be available. Therefore, IGFA suggests that ISSC and ICSU, in concert with HDP, critically analyze the financial needs of the HDP through the development of a work plan and budget for activities for the planned two year development phase." This remark remains valid still today and it is expected that in addition to internal working documents the new Scientific Committee will provide a budget, maybe in terms of alternative levels of ambitions.

The comment "IGFA is prepared to undertake an internal consultative process with interested members aimed at a concerted pattern of voluntary commitments directed toward supporting the proposed two year ISSC/ICSU HDP development effort" is more directed internally to IGFA members. The survey during the spring 1996 among IGFA members, aimed at serving this purpose, provided only a very partial response. As the consolidation of the "new" IHDP was less obvious at the time of the survey it might provide a better setting in time for such assessments in the IGFA-family.

### To sum up:

The IGFA-meeting in Oslo has not as a major item to make any final judgment about IGFA members opinion about the IHDP programme. The plenary IGFA however should take note of the distinct and strategic changes that has been taking place with regard to the programme since the IGFA Kyoto meeting.

It should also take note of the limited moves among IGFA members so far in signaling, and even more providing in different ways support for the programme. It seems to be time to make a fresh look in those countries where a policy of an international programme of this kind seems an interesting option to use the

The new IHDP may not yet have delivered more than early policy indications. A too slow response on these from IGFA members - and to the extent to what we can see they consistently go in the direction of long standing IGFA interests - may put at risk the emergence of what has since long from plenary IGFA has been called for: a vigorous and competent research programme actor at the highest international level interplaying with not the least IGBP and WCRP on equal par.

### 3. Other "human dimensions" concerns

As was indicated earlier in the introductory part there are several interesting general tendencies occurring in this field. There is first of all a pluralization of actors. This should not from the IGFA standpoint be seen as a problem but rather be seen as an indicator that the field is maturing.

The pluralization takes place in terms of regional programmes interest in these issues like the APN in the Asian part, the "human dimensions" interest in the interamerican programmes and the EU socio-economic environmental programme as well as activities in the European Science Foundation. START activities with an integrated human dimensions approach should also be noted.

At the national level an abundance of activities devoted to these research interest are visible but still connected to each other at the international level only to a limited degree and then mostly as internal disciplinary cooperation ventures. Also the number of nation based journals and simple "state of the art" circulars is quickly expanding.

The initiative to follow up the successful international conference (but at that time basically US oriented activity despite ambitions for international contacts) at Duke University is in this situation highly interesting. The new conference is scheduled to take place at IIASA mid 1997. It his initiative succeeds it could at the world level take stock of the strong expansion thematically and also be instrumental with regard to actor plurality. Many of the international actors are already involved in the event.

The limited presence of "developing countries" representatives in many of the groupings dealing with international cooperation in "human dimensions" issued does not mean that such activities do not occur in these countries. Due to the conceptual importance also of "the local" with regard to the connection to "global agendas" it must strongly be emphasized that such already ongoing activities in developing countries are given recognition in circles trying to compile international efforts in the field of "human dimensions".

Finally the policy links of "human dimensions" research is still an unsettled issue. In some countries and traditions this has been dealt with by just decoupling the research activities from policy.

In others the intervowenness of research illuminations in these fields have been

on. A careful scrutiny of these connections and non-connections seems still to be needed to be performed, and maybe in a plural fashion as a process, in order not to lock the results into one or the other style of already existing frameworks.

For the IGFA working Group on "Human Dimensions"

September 1996

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# Appendix F

# General Requirements for Support of International Project Offices (IPO's)

- International scientific project offices are traditionally supported through arrangements between international scientific committees and national funding entities. These arrangements should reflect clearly both the expectations and commitments of the parties concerned. These guidelines are intended to assist in achieving this objective.
- 2. International project offices generally require funding for:
  - scientific and support staff;
  - office space and equipment;
  - staff travel;
  - communications; and
  - documentation/publication services.

Additional funding may be needed for support of scientific meetings. An overview of the functions and resource requirements for IGBP core project offices is available from the IGBP Secretariat.

3. Draft terms of reference for a project office should be developed by the international scientific committee for the project.

These terms of reference should specify:

- the tasks and responsibilities to be assigned to the office;
- the logistic requirements (in the broad categories listed above); and
- the proposed level of funding.
- 4. The international scientific committee should identify and approach a potential lead national funding agency. The committee and the agency should decide on an appropriate host organization for the office and define the office's operational and legal status, e.g., whether the office is to operate independently of; autonomously within; or as a component of its host organization.
- 5. Agencies which agree to fund or share in funding for a project office should provide such funding on a long-term basis, for at least a three-to five-year period. An agency which has a substantive interest in hosting an IPO but is able to provide only part of the overall funding needed should take the lead in developing the total resources needed through IGFA. Extensions of such arrangements should be considered and agreed well in advance of the end of each operating period.
- 6. Project offices (should) (often) include a core staff of two scientific professionals, a director and deputy/associate and a staff assistant/secretary.

The director generally would focus on scientific activities and the deputy/associate would divide his/her time between science and management, e.g., programming, data management and budgeting. Additional scientific or support staff may be needed for specific purposes.

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- 7. The lead national funding agency should arrange for the office to draw on the host organization's regular administrative services to support management of the office's funds and to deal with issues of staff salaries, fringe benefits etc. In addition, the host organization should assist the IPO in obtaining any governmental approvals and endorsements needed, e.g., visas, work permits, entry of office equipment, publications, etc.
- 8. Funding levels needed for IPO's are expected to vary, depending on the level of responsibilities and tasks assigned; the location of the office and local salary and overhead costs; currency exchange rates; and the availability of needed services within the host organization.

### The Future Role of IGFA

#### 1. IGFA's Role: Past and Present

IGFA's general objective has been and is to actively bring together agencies which promote international Global Change research and co-operation in the natural, social, and economic sciences in view of the available resources. IGFA provides an informal framework within which national and some international funding agencies exchange information and views regarding ongoing and planned Global change research. IGFA also functions as a forum for discussion of:

- different national strategies and methods for Global Change research support;
- the relations and developments of natural and social sciences within the national, regional and international frames related to Global Change;
- specific actions to improve the research co-ordination and to guarantee synergy effects;
- other mutual areas of interest and problems such as the public acceptance of the Global Change issue.

While for the large international programs there exist panels and methods to achieve a program-related scientific harmonisation, no such established board exists within the organisational area (financing, logistics). In particular, regarding the International Geosphere-Biosphere Program (IGBP), there is a wide and important field for activities of IGFA.

IGBP regards IGFA as an important body for checking the sense of realism of Global Change research programs and attaches importance to IGFA as a target group for information on the progress of the IGBP program. Non-bureaucratically, IGFA has made resources available and pointed to solutions. IGFA members, by being actively involved in the IGFA process, have developed a better understanding of national funding structures and procedures and become better informed on international trends.

# **2. Factors and Trends Impacting Global Change Research and its Funding** For the future, IGFA will need to take the following trends into account:

· growing political interests in many countries in:

- > sustainable development, which is increasingly recognised as being impacted by and vulnerable to Global change;
- > discussions of a long-term integrated observing strategy, partly due to increasing budget pressures, but also due to the recognition of scientific need to expand observing beyond the current operational meteorological network;
- > strategies for reducing pollutants;
- > socio-economic aspects;
- increasing demand to give an account of the:
  - > scientific outcomes and their added value:
  - > relevance of the research for the public;
- funding budgets in two countries are slightly increasing; in some countries they are constant; however, in most countries funding budgets are decreasing.

In addition, scientific results are becoming available from international and national Global Change research programs. IGBP has involved increasing numbers of biologists, chemists and geologists in Global Change research, improving our ability to understand interactions between biological ecosystems and changing atmosphere and oceanic processes. In several areas of climate research the World Climate Research Program (WCRP) is moving from "understanding" towards "predicting". These advances and the building of databases are encouraging scientists to develop improved and increasingly realistic models for atmospheric and oceanic processes and for their interaction.

These results are having an impact on the conduct and planning of Global Change research and its funding; they also provide policy makers with an increasingly reliable basis for development of policy. As the new International Human Dimensions Program (IHDP) moves forward under joint ISSC/ICSU sponsorship, it is expected that more direct co-operation between social and natural scientists will improve capabilities to address the social and economic aspects of Global Change.

At the same time, however, many countries are down sizing their government and their government expenditures, thus placing severe constraints on basic research, including Global Change research, the funding of which rests primarily with national governments.

IGFA will need to continue its role as an informal communication network among funding agencies and between them and international global change programmes, as they develop and evolve, in order to produce good working linkages between these programmes and ensure that they provide a cost-effective mechanism for international scientific co-ordination.

#### 3. IGFA's Future Role

In view of perceivable trends and gained experience, there are mainly three areas where IGFA's activities are needed:

The primary role of IGFA is an internal one: communication among the funding agencies, which together fund about 2.2 Billion US\$ for research projects on Global Change. This communication helps ensure that each agency is aware of the overall pattern of funding for global change research and of the problems and issues facing the agencies, individually and collectively.

The secondary role is to be a major platform for communication with international organisations dealing with global research issues, in order that IGFA members can be aware of the wider context for their activities and that international groups can be aware of funding issues and constraints.

These organisations include:

the international Global Change research programs (WCRP, IGBP, IHDP) and

- other co-ordinating bodies in global change research, such as the IAI, APN and ENRICH;
- the international policy sector, since Global Change is an international policy issue. IGFA's role is not on the contents of the science - this is up to IPCC - but on the long-term perspective of funding levels. Furthermore, IGFA can support the linkage of research with politics, in order to facilitate national and international decision-making.

The tertiary role of IGFA is to address specific issues related to global change research and its funding, e.g.:

- The funding of International Project Offices (IPO's), the integration of national and regional research projects and programs as well as their linkage at all levels; and the projects and programmes' evaluation;
- Involvement of aid agencies in funding capacity building;
- · The management and funding of data bases;
- The financial aspects of global observing systems.

In addition, and partly connected to one or more of the above mentioned three levels of activities, there are specific foci IGFA should deal with:

### a) Resources for Global Change research

The changing global economic situation generally is resulting in reduced funding for basic research and/or Global Change research. Funding agencies and scientists are going to have to work even more closely together in the future than in the past. International co-ordination and shared funding of major projects need to be strengthened to assure that funds are allocated and utilised as effectively as possible (e.g., by the linking, aggregation or integration of research and the development of priorities). It is increasingly important that funding agencies are able to make the strongest possible case to their budgetary authorities for approval of funds for Global Change research.

IGFA should continue and strengthen its efforts to develop and utilise the international for the funding of Global Change research - the IGFA Resources Assessment Survey. Input to the core database should be sought from all agencies involved in funding Global Change to assist in identifying the true levels of resources being allocated to the major international Global Change research programs. IGFA should ensure that the international scientific community is regularly apprised of the resources likely to be available for support of Global Change research in order that the community can develop realistic science plans.

IGFA should encourage and support the search for additional sponsors. IGFA can advise, through the sharing of common experiences, the scientific community as to how best to seek catalytic funding in order o identify and determine the priority of new needs for research and/or technology, the enhancement of co-operation among programmes and project, and the wrap-up

and evaluation of programs/projects.

b) The Human dimensions of Global Change IGFA has assigned and should continue to assign a high priority to studies of the socio-economic aspects of Global Change research. IGFA strongly supported the review process of the HDP which resulted in the co-sponsorship between ICSU and the ISSC for the IHDP. However, it is important t allow time for

this new arrangement and infrastructure to demonstrate whether it can develop a credible programme.

IGFA should encourage and support this process, working closely with ICSU, and should ask its Working Group of the Human dimensions of global Change to maintain a "watching brief" in this area and to serve as IGFA's primary link with ICSU and the ISSC in this area.

IGFA should encourage the establishment of national HDP structures and programs, as close links to national programmes are especially important for a functional IHDP.

c) The Interaction Between Research funding Agencies and Aid Agencies Several research projects on global change such as GCTE, LOICZ, LUCC and other human dimensions projects are related to development. Participation in these projects is relevant for developing countries, but these have insufficient means to participate in global change research. Capacity building, equipment and facilitation of participation in the international frameworks of the programmes need funding. National aid agencies are increasing their funding programmes in support of sustainable development. However, with the recognition that such development is closely linked to global environmental processes has come the awareness that such development is also likely to be impacted by Global Change. Aid agencies have thus become more open than in the past to proposals for research on Global change.

While IGFA members judge the needs and proposals for research, their mandated usually do not include he funding of development aid. Therefore, the IGFA Working Group on Relations with Aid Agencies should strengthen dialogue with national and international aid agencies, with START and other core projects and with scientists and institutions in developing countries. It should bring together aid agencies with regional activities that IGFA members sponsor.

d) Global Observing Systems and Data Management The increasing efforts in global and regional modelling have generated needs for more comprehensive global environmental databases with more complete spatial and temporal coverage. New technology is being developed primarily under Global change research programs (not monitoring programs) for longterm observations and fort he transmission, processing, analysis, archiving and exchange of collected data.

Much of the latter technology is equally applicable to terrestrial, oceanic and atmospheric observations and data. Thus, awareness is growing of the need to

in these spheres on a comprehensive and effectively integrated basis.

There is in a place a comprehensive international infrastructure for support and co-ordination of environmental observing systems. However, there are two areas in which IGFA could very usefully give additional support. First, it is important to assure that the new observational and data management system capabilities which have been and are being developed under Global change research programs are transferred to the international observations and data management systems as they are planned, designed and implemented. Second, these new systems will be called upon to meet multiple needs, because funding constraints are unlikely to permit establishment of separate systems to meet the diverse needs of research forecasting and other users. Therefore, it is essential to assure that the needs of Global Change research programs are not only transmitted to, but are met by, new observing systems.

Along these lines, the IGFA Working Group on Observing systems should continue its activities, liaising closely with GCOS, GOOS, GTOS and CEOS, analyse relevant developments and inform IGFA on these.

- e) *IGFA's structure, membership and relationship with other organisations*For IGFA to continue its focus on the exchange of information and views, for IGFA to develop a truly comprehensive data base on the resources for Global Change, and for IGFA to most thoughtfully address Global Change research funding issues, such as those related to sustainable development, is important for IGFA to:
  - remain as an informal grouping;
  - maintain and broaden participation in IGFA's activities by establishing working relationships with funding agencies in other countries, especially from developing countries (e.g. in Asia, Africa and Latin America) and economies in transition (e.g. in central and eastern Europe) and regional institutions which fund Global Change research (e.g. IAI);
  - maintain an awareness of:
    - a) international organisations involved in Global Change research (e.g., IIASA) or in it funding (e.g., GEF and BellaNet);
    - developments in international organisations dealing with policy issues related to Global change research, such as the parties to the Framework Convention on Climate Change (FCCC), and the intergovernmental Panel on Climate Change (IPCC).

In pursuing this objective it will be essential for IGFA to continue to work primarily through the efforts and programs of its member agencies. It cannot and must not become either a "super-funding" agency or a lobbying group.

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